



O. H. M. S.

W. J. Gerald
Deputy Minister.

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA.

BULLETIN No. 178

SPIRIT OF CAMPHOR (SPIRITUS CAMPHORÆ)

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OTTAWA, March 26, 1899.

W.M. HIMSWORTH, Esq.,
Acting Deputy Minister of Inland Revenue.

SIR,—I beg to hand you herewith a report upon seventy-four (74) samples of spirit of camphor, purchased throughout Canada in January of this year.

The collection was made in consequence of some complaints to the effect that this article was offered with so weak a spirit strength as to make it useless for the purposes to which it is applied by physicians and the public.

The present examination has regard solely to the spirit-strength of the alcohol used. It is intended, in the course of the coming year, to make another collection, in which the content of camphor, and the nature of the alcohol employed as a solvent will be determined.

The British Pharmacopeia prescribes spiritus rectificatus (90 per cent. alcohol) as the proper solvent for preparation of spirit of camphor. This spirit has a specific gravity 0·834; and the resulting spirit of camphor is required to have a specific gravity varying between 0·843 and 0·847. There is an increase of volume of approximately 10 per cent. on dissolving camphor in alcohol, according to pharmacopeal directions for preparation of spirit of camphor. Allowance being made for this increase of volume, the finished spirit of camphor represents an alcoholic solution containing practically 81 per cent. by volume of alcohol.

Reasonable allowance being made for loss of alcohol due to evaporation during manufacture and the opening of bottles in dispensing, I have considered it right to pass all samples showing over 75 per cent. by volume of alcohol. This amount of alcohol is sufficient to retain in solution the whole of the camphor used in the manufacture of pharmacopeal spirit of camphor.

Twelve samples show less than 75 per cent. of alcohol. Of this number eight (8) samples contain above 70 per cent. and may be regarded rather as doubtful, than as actually adulterated, in the sense of having been made with less spirit than the pharmacopeia requires. Four (4) samples, are distinctly too low in spirit, and must be regarded as adulterated under the Act. These are :—

No. 36810 containing 54·08 per cent Alcohol.

" 36812	"	56·72	"	"
" 937	"	58·60	"	"
" 22903	"	60·84	"	"

This is the first occasion of inspecting spirit of Camphor; and as it is purposed to institute another inspection, in the course of which a more detailed study of the article will be undertaken, it may be considered rather satisfactory than otherwise, that I am able to report an adulteration of less than 5·5 per cent.

I beg to recommend the publication of this report as Bulletin No. 178.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,

Chief Analyst.

BULLETIN No. 178—SPIRIT OF CAMPHOR—(SPIRITUS CAMPHORE).

Date of Collection.	No. of Sample.	Nature of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	Results of Analysis.	
							Sig. Gr. Dissolve to 4 Vols.	Alcohol by Volume.
1909.	12	Spirit of Camphor.	33881 Buckley Bros., Halifax, N.S. . . .	4 oz. . . .	25 Vendors . . . . .	.....	0.9754	p.c. 83.20
"	11	"	33882 A. A. Thompson, Halifax, N.S. . . .	4 " . . .	25 Vendor . . . . .	.....	0.9751	84.36
"	19	"	33883 H. E. Wilson, Halifax, N.S. . . .	4 " . . .	30 "	.....	0.9756	82.44
"	20	"	33884 W. F. Odell, Truro.	4 " . . .	30 "	.....	0.9749	85.16
"	20	"	33885 Hub. Drug Store, Truro.	4 " . . .	40 "	.....	0.9755	82.84

DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.

Date of Collection.	No. of Sample.	Nature of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	Sig. Gr. Dissolve to 4 Vols.	Alcohol by Volume.
Jan. 7	7	Spirit of Camphor.	31448 A. W. Reddin, Charlottetown.	4 oz.	40 Vendors. . . . .	.....	0.9761	p.c. 80.60
"	7	"	31449 G. E. Hughes, Charlottetown.	4 "	40 "	.....	0.9750	84.76
"	7	"	31450 Johnson & Johnson, Charlottetown.	4 "	40 "	.....	0.9763	79.84
"	11	"	31451 A. W. P. Gourlie, Summerside.	4 "	45 "	.....	0.9784	71.24
"	12	"	31452 Edgar Keir, Kensington.	4 "	40 "	.....	0.9751	84.36

DISTRICT OF PRINCE EDWARD ISLAND—THEO. MOORE, INSPECTOR.

DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON, INSPECTOR.

Jan. 11	Spirit of Camphor...	29882	George A. Moore, St. John, N.B.	4 oz.	40	Vendor.....	.....	.....	.....	0.9751	84.36
" 16	"	29883	A. J. Ryan, Fredericton, N.B.	4 "	20	"	.....	.....	.....	0.9757	82.06
" 18	"	29884	Garden Bros., Woodstock	4 "	20	"	.....	.....	.....	0.9751	84.36
" 25	"	29885	Sussex Mercantile Co., Ltd.	4 "	45	C. H. Fairweather, Sussex Mercantile Co., A. E. Shaw, Newcastle, N.B.	Dispenser,	.....	.....	0.9751	84.36
" 27	"	29886	A. E. Shaw, Newcastle, N.B.	4 "	20	A. E. Shaw, Newcastle, N.B.	.....	.....	.....	0.9756	82.44

DISTRICT OF QUEBEC—E. BELAND, INSPECTOR.

Jan. 11	Spirit of Camphor...	36908	A. Martineau, 734 St. Valier St.	4 oz.	25	Vendor.....	.....	.....	.....	0.9749	85.16
" 11	"	36909	Jos. Masson, 808 St. Valier St.	4 "	25	"	.....	.....	.....	0.9763	79.84
" 12	"	36910	G. P. Plamondon, 122 St. Joseph	4 "	25	"	.....	.....	.....	0.9829	54.08
" 12	"	36911	P. C. Lachapelle, 224 St. John	4 "	40	"	.....	.....	.....	0.9734	86.86
" 12	"	36912	C. P. Delisle, 379 St. John St.	4 "	25	"	.....	.....	.....	0.9822	56.72

DISTRICT OF ST. HYACINTHE—J. C. ROULEAU, INSPECTOR.

Jan. 11	Spirit of Camphor...	935	Pharmacie Larochele	4 oz.	20	Vendor.....	.....	.....	.....	0.9764	77.48
" 13	"	936	Dr. Bedard, Drummondville	4 oz.	30	"	.....	.....	.....	0.9761	80.60
" 19	"	937	Dr. C. P. Verdon, Granby	4 "	35	"	.....	.....	.....	0.9817	56.60
" 19	"	938	Dr. Demers, Farnham	4 "	35	Lyman Knox, Montreal	.....	.....	.....	0.9761	80.60
" 20	"	939	Dr. Guy, Jt. Jean, Que.	4 "	40	Vendor.....	.....	.....	.....	0.9757	82.06

BULLETIN No. 178—SPIRIT OF CAMPHOR—(Spiritus Camphore).

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	Results of Analysis.	
							Quantity. Cents.	S. Gr. Distillate to 4 Vols.
Jan. 5	Spirit of Camphor...	32671	E. Gagnon, 93 St. Valier Ville, St. Louis, P.Q.	4 oz..	35	Vendor.....	.....	0.9778 73.92
" 5	"	32672	H. R. Huot, 68 Laurier Av., St. Louis, P.Q.	4 "	45	"	.....	0.9746 86.36
" 11	"	32673	James Fortune, Huntingdon, P.Q.	4 "	30	"	.....	0.9765 78.72
" 14	"	32674	Dr. J. B. Martin, 212 St. Joseph 4 oz..	40	"	.....	.....	0.9742 87.96
" 22	"	32675	St. Lachine, P.Q.	4 "	30	"	.....	0.9742 87.96

DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR.

Jan.	Spirit of Camphor...	22801	W. G. Bolster, Chesterville, ... 4 oz..	40	Vendor .....	.....	.....	.....
" 12	"	22802	D. A. Muirhead, Carleton Place 4 "	30	"	.....	.....	.....
" 13	"	22803	Chas A. Adams, Kemptonville ... 4 "	30	McLennan, Kemptonville	"	"	0.9761 80.60
" 19	"	22804	J. A. Munro, Ottawa, ... 4 "	45	Vendor	"	"	0.9811 60.84
" 20	"	22805	The Modern Pharmacy, Hull, 4 "	40	"	.....	.....	0.9772 76.32

DISTRICT OF OTTAWA—J. A. RICKY, INSPECTOR.

Jan.	Spirit of Camphor...	22801	W. G. Bolster, Chesterville, ... 4 oz..	40	Vendor .....	.....	.....	.....
" 12	"	22802	D. A. Muirhead, Carleton Place 4 "	30	"	.....	.....	.....
" 13	"	22803	Chas A. Adams, Kemptonville ... 4 "	30	McLennan, Kemptonville	"	"	0.9811 60.84
" 19	"	22804	J. A. Munro, Ottawa, ... 4 "	45	Vendor	"	"	0.9772 76.32
" 20	"	22805	The Modern Pharmacy, Hull, 4 "	40	"	.....	.....	0.9740 88.72

DISTRICT OF KINGSTON—JAS. HOGAN, INSPECTOR.

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

DISTRICT OF LONDON--T. KIDD, INSPECTOR

BULLETIN No. 178—SPIRIT OF CAMPHOR—(Spiritus Camphore).

Date of Collection.	Nature of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.	
						Quantity.	Quintal.
Jan. 7	Spirit of Camphor...	34735 H. Robertson, Sarnia.....	4 oz..	40 Vendor.....	.....	.....	0.9737
" 7	" "	34739 Peter McGibbon, Sarnia.....	4 " ..	25 "	.....	.....	0.9762
" 8	" "	34743 W. H. Dale, Petrolia.....	4 " ..	50 "	.....	.....	0.9747
" 11	" "	34750 G. Jonson, Ingersoll.....	4 " ..	40 "	.....	.....	0.9749
" 11	" "	34761 F. G. Valley, Ingersoll.....	4 " ..	40 "	.....	.....	0.9786

DISTRICT OF WINDSOR—JAS. TALBOT, INSPECTOR.

Jan.	Spirit of Camphor...	34735 H. Robertson, Sarnia.....	4 oz..	40 Vendor.....	.....	.....	0.9737	89.84
" 7	" "	34739 Peter McGibbon, Sarnia.....	4 " ..	25 "	.....	.....	0.9762	80.24
" 8	" "	34743 W. H. Dale, Petrolia.....	4 " ..	50 "	.....	.....	0.9747	85.96
" 11	" "	34750 G. Jonson, Ingersoll.....	4 " ..	40 "	.....	.....	0.9749	85.16
" 11	" "	34761 F. G. Valley, Ingersoll.....	4 " ..	40 "	.....	.....	0.9786	70.36

DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR.

Jan.	Spirit of Camphor...	35821 Morrison's Drug Store, Virden, 4 oz..	40 Vendor.....	.....	.....	.....	0.9755	82.94
" 14	" "	35822 E. W. Bailey, Hartney, M.....	4 " ..	40 "	.....	.....	0.9749	85.16
" 19	" "	35823 Miller's Pharmacy, Shoal Lake.....	4 " ..	35 Not known.....	.....	.....	0.9748	85.66
" 19	" "	35824 H. K. Clatway, Shoal Lake.....	4 " ..	35 Vendor.....	.....	.....	0.9750	84.76
" 21	" "	35825 F. L. Brown, Winnipeg.....	4 " ..	30 "	.....	.....	0.9773	75.92

" 19	" "	38824 H. K. Ulaway, Stony Lake.....	4 oz.	30	"	0.9773	75.92
" 21	" "	48825 F. L. Brown, Winnipeg.....	4 oz.	30	"	0.9773	75.92

DISTRICT OF CALGARY—R. W. FLETCHER, INSPECTOR.

Jan. 15	Spirit of Camphor.	35382 W. McLean, Calgary.....	4 oz.	25	Vendor.....	.....	0.9743	87.56
" 22	" "	35383 B. F. South, Medicine Hat.....	4 oz.	50	" .....	.....	0.9749	86.16
" 22	" "	35384 E. M. Cawner, Medicine Hat.....	4 oz.	50	" .....	.....	0.9767	78.76
" 22	" "	35385 C. T. Pringle, Medicine Hat.....	4 oz.	50	" .....	.....	0.9776	74.72
" 26	" "	35386 Edales Drug Store, Calgary.....	4 oz.	40	" .....	.....	0.9781	72.56

DISTRICT OF VANCOUVER—J. F. POWER, INSPECTOR.

Jan. 29	Spirit of Camphor...	37566 Maret Reid, Vancouver.....	4 oz.	50	Vendors .....	.....	0.9743	87.56
" 29	" "	37567 Herog & Strachan, Vancouver.....	4 oz.	40	" .....	.....	0.9746	86.36
" 29	" "	37568 L. Henderson, Vancouver.....	4 oz.	30	Vendor.....	.....	0.9760	80.96
" 29	" "	37569 Nelson's Drug Store, Vancouver.....	4 oz.	30	" .....	.....	0.9766	70.36
" 29	" "	37570 City Drug Store, Vancouver.....	4 oz.	60	" .....	.....	0.9776	74.72

DISTRICT OF VICTORIA—D. OSULLIVAN, INSPECTOR.

Jan. 26	Spirit of Camphor...	39289 Dean & Hiscocks, Victoria.....	4 oz.	50	Vendors .....	.....	0.9754	83.20
" 26	" "	39290 Hall & Co., Victoria.....	4 oz.	40	" .....	.....	0.9737	89.84
" 26	" "	39291 W. Jackson & Co., Victoria.....	4 oz.	35	" .....	.....	0.9743	87.56
" 27	" "	39292 W. S. Perry, Victoria.....	4 oz.	40	Vendor.....	.....	0.9769	77.96
" 27	" "	39293 F. J. Williams, Victoria.....	4 oz.	50	" .....	.....	0.9752	83.96